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THE SOVIET FISHING INDUSTRY: PROSPECTS AND PROBLEMS

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SUMMARY

1. The Soviet Union operates the world's largest and most modern fishing and fishing support fleets. With its ships ranging the world's oceans and seas in pursuit of this key food source -- which constitutes more than 15% of animal protein consumed in the Soviet Union -- the Soviet fishing industry is supported by an active oceanographic research program and an extensive fisheries aid program. In 1973 the Soviet fish catch reached 9 million metric tons -- 13% of the world total -- second only to the Japanese catch of 10.7 million tons.

2. In the 1971-75 plan, the Soviets established a series of ambitious goals for their fishing industry. These included an accelerated fleet expansion program, increases in the total catch, and expanded areas of operation. Many of these goals will not be met for the following reasons:

- Ship acquisitions have been below planned levels.
- Expansion of the fleet has outpaced the capability of on-shore distribution and processing systems to handle the catch.
- Long-distance fishing operations, which require a large number of support vessels, have reduced the fleet's overall productivity.
- Worldwide concern over the depletion of fish stocks in traditional fishing grounds has led to the imposition of strict conservation measures.

3. In the future, the likely imposition of a 200-mile limit will restrict Soviet access to prime fishing grounds off the Atlantic and Pacific continental shelves, where 90% of the world's ocean catch is taken. The combination of increased conservation measures and the possibility of limited access to traditional fishing grounds will force Soviet operations into less productive seas, which contain fish not normally desired by consumers.

DISCUSSION

Fleet Size and Composition

4. The Soviet fishing fleet is the largest in the world. Consisting of about 4,400 ships[1] totaling 6.0 million GRT at mid-1974, it represented 54% of the world's fishing fleet and far outranked the Japanese fleet -- second largest in the world with 3,200 ships of 1.2 million GRT -- and the fourth-placed US fleet of some 1,600 ships of only 400,000 GRT (see Table 1).

Table 1

World Fishing Fleet Inventory[1]
as of 1 July 1974

	Number of Ships	Million GRT	Percent of World GRT
World total	18,400	11.1	100
USSR	4,400	6.0	54
Japan	3,200	1.2	11
Spain	1,600	0.5	4
United States	1,600	0.4	4
Norway	600	0.2	2
Other	7,000	2.8	25

1. In excess of 100 GRT. Some countries, particularly Japan, China, and Norway, have large fleets of fishing vessels of less than 100 GRT.

5. Since most of the Soviet catch is taken and processed at long distances from home ports, 20% of the ships in the fleet are support vessels -- refrigerated transports, factory ships, and tankers -- needed to sustain such operations. As these ships are larger than fishing vessels and range up to 25,000 GRT, they account for more than half of the total tonnage in the fleet. In contrast, about 15% of the tonnage in the Japanese fleet -- also deployed at long distances from home ports -- consists of support ships, while Norway and the United States have almost none of these ships in their fishing operations.

1. In excess of 100 GRT (gross register tons), a measure of enclosed space commonly used in assessing the capacity of fishing fleets.

6. Fishing ships such as trawlers, whalers, and seiners[2] form the bulk of the fleet's inventory. Trawlers are by far the predominant class, accounting for 80% of all fishing vessels. The Soviets have pioneered in the use of standardized classes of large fishing vessels, the most common of which are the large 400 GRT Mayak-class trawlers and the smaller 250 GRT SRT-class trawlers. These fishing ships are equipped to remain at sea for a year at a time, working with the processing support vessels. Crews are exchanged periodically, allowing the ships to remain on station.

7. The 1971-75 plan called for the expansion of the fishing fleet to 7.2 million GRT by the end of 1975. This goal will not be achieved. Deliveries of 180-200 ships a year were planned through 1975, but annual deliveries through 1973 have averaged well below 150 vessels. In addition, retirement of older vessels is being speeded up, bringing the estimated 1975 inventory to 6.3 million GRT (see Tables 2 and 3).

Table 2

USSR: Additions to the Fishing Fleet

Year Built	Number	Thousand GRT[1]	Average GRT
1960	210	220	1,050
1965	200	500	2,500
1966	240	530	2,200
1967	170	410	2,400
1968	200	430	2,150
1969	190	490	2,600
1970	190	470	2,500
1971	160	430	2,700
1972	110	230	2,100
1973	130	300	2,300
1974 (est.)	130	300	2,300
1975 (est.)	130	300	2,300

1. As of end of year.

2. Seiners are fishing boats which employ a sein net, a type of fishing net used to capture fish near the surface of the water; trawler nets are generally used for deeper fishing.

Table 3

USSR: Fishing Fleet Productivity

Year	Fleet Size[1] (Million GRT)	Catch	
		Million Metric Tons	Tons per GRT
1970	4.3	7.9	1.8
1971	5.2	7.8	1.5
1972	5.4	8.2	1.5
1973	5.8	9.0	1.6
1974	6.0	9.5	1.6
1975 (est.)	6.3	9.9	1.6

1. As of mid-year.

8. Owing to its extensive use of support vessels, productivity of the Soviet fishing fleet is low, averaging only 1.6 tons of fish caught per GRT. The Japanese fleet -- only one-fifth the size of the Soviet fleet -- catches a larger volume of fish. The small US fishing fleet, bolstered by a modern and productive tuna fleet, also catches far more fish per GRT than the Soviet fleet (see Table 4).

Table 4

Fishing Fleet Productivity for Selected Countries
1973

Country	Fleet Size[1] (Million GRT)	Catch (Million Metric Tons)	Productivity (Tons per GRT)
USSR	5.8	9.0	1.6
Japan	1.2	10.7	8.9
United States	0.3	2.2	7.3

1. Vessels in excess of 100 GRT.

9. To increase productivity, the Soviets are refining vessels, equipment, and fishing methods. New vessels include a large mother ship, equipped with helicopters and electronic fish finding gear, that carries smaller fishing vessels and processes the catch at sea. Another new development is a catamaran trawler that can work in rough seas. In addition, sophisticated communication equipment is being installed on fishing boats along with equipment for night fishing. Other new procedures include the use of computers on land to locate the best fishing grounds under different weather conditions.

Organization and Administration

10. Soviet fishing operations are controlled by the Ministry of Fishing Industry which is subordinate to the Council of Ministers. The ministry consists of five chief directorates, one for each of the country's five sea basins.[3] These directorates control subordinate organizations which oversee the activities of the fishing enterprises and whaling flotillas in their regions. The fleets based in the Far East and the Baltic account for about two-thirds of the fleet; the landlocked Caspian Sea fleet is the smallest.

11. The ministry is spending about $1 billion a year under the $5 billion budget of the current 5-year plan. More than 75% of this budget is allocated for ship acquisitions. Approximately 750,000 people are employed by the fishing industry, compared with about 500,000 in Japan. Soviet fishermen earn more than the average Soviet laborer; for example, masters, among the highest paid seafarers in the fishing and merchant fleets, earn about $15,000 per year. To assure continued support for the industry, the ministry has established 29 educational institutions, five at the university level and 24 at the secondary level.

12. The Soviets are members of most of the 20 or so international regulatory commissions having jurisdiction over a geographic region or species of fish and whales. Generally the USSR abides by international regulations established by these bodies, fearing the unilateral imposition of strict controls by coastal states. Moscow, however, often opposes conservation measures such as

3. There are directorates for: Northern Waters (Murmansk), Western Waters (Kaliningrad), Azov-Black Sea Waters (Odessa), Far Eastern Waters (Vladivostok), Caspian Sea Waters (Astrakhan).

larger net openings and limitations on fishing seasons recommended by these international commissions.

Soviet Fish Catch and Consumption

13. In 1973, Soviet vessels caught 9 million tons of fish, 13% of the world's total catch of 67 million tons, and second only to Japan's 10.7 million tons (see Table 5). The current Soviet 5-year plan calls for the

Table 5

Fish Catches[1] of Selected Countries, 1973

Country	Million Metric Tons	Percent of Total
World total	67.0	100
Japan	10.7	16
USSR	9.0	13
China (est.)	7.0	10
Peru	2.8	4
Norway (est.)	2.7	4
United States	2.2	3
Other	32.6	50

1. Including ocean fish and shellfish, sea mammals, and fresh water fish. Ocean fish constitute about 90% of the take.

catch to increase 5.5% a year, a drop from the annual goal of 8% in the previous 5-year plan. Even this reduced target was not reached in the first years of the plan, but the catch improved in 1973 and preliminary reports indicate the Soviets exceeded their goals in 1974 (see Table 6).

14. Despite improved operations in 1973 and 1974, the planned catch of 10.4 million tons in 1975 will not be achieved. To fulfill this objective, the Soviets must increase their catch by about 900,000 tons in 1975, an ambitious undertaking based on recent performance. Problems such as reduced deliveries of fishing vessels, depletion of traditional fish stocks, and restrictive fishing regulations imposed by coastal states make it unlikely that the 1975 plan will be met.

Table 6

Soviet Fish Catch

Year	Annual Catch: Million Metric Tons	Annual Increase: Million Metric Tons	Annual Increase: Percent
1965	5.8	0.5	9
1966	6.1	0.3	5
1967	6.6	0.5	8
1968	6.8	0.2	3
1969	7.1	0.3	4
1970	7.9	0.8	11
1971	7.8	-0.1	-1
1972	8.2	0.4	5
1973	9.0	0.8	9
1974 (est.)	9.5	0.5 (est.)	6
1975 (est.)	9.9	0.4 (est.)	4
1975 (plan)	10.4	0.9	9

15. Failure to meet the planned catch in 1975 will directly affect plans to increase protein intake in the Soviet Union. Fish and fish products are an important component of the Soviet diet, providing about 15% of total Soviet consumption of animal protein in 1970. The Soviets had planned to increase this share to 18% by 1975 but will not reach this mark.

16. Shortfalls in the catch of traditional species of fish -- herring, mackerel, cod, and flounder -- are forcing the Soviets to tap species not normally consumed and to experiment with several new fishing techniques. The Soviets are enlarging their catch of krill -- a shrimp-like shellfish found in the Antarctic -- and are processing it into fish protein concentrate. In addition, other species such as squid, ray, and shark -- all relatively new to Soviet consumers -- are being increasingly pursued by the Soviet fleet. Controlled breeding of traditional species such as salmon and mullet is also under way. The Institute of Sea Fishing and Ocean Research has established fish farms in the Sea of Azov. Other hatcheries are operating on the shores of the Baltic and Black Seas. Finally, an ambitious oceanographic research effort complements the Soviet fishing

industry. Research in this area is yielding valuable data on fish habits such as migration patterns and specie availability at various depths that can be used to exploit potential new species.

Soviet Fisheries Aid Programs

17. The Soviet Union has an active aid program for the development of fishing industries around the world. Between 1958 and 1973, more than $115 million in aid was extended to developing countries for port development, storage facilities, training, joint fishing expeditions, and seabed research. Repayment is largely in ship repair and service facilities. Promulgation of a 200-mile territorial limit by many developing countries is leading Moscow to offer aid in return for fishing privileges. In some instances, joint companies are formed in which the USSR supplies ships and crews in return for a share of the catch.

18. Soviet fisheries aid has generally followed the geographic pattern of the overall Soviet aid program, but special grants have been made to gain access to specific ports or fishing grounds. For example, as Moscow's interest in the Indian Ocean increased in the early 1960s, aid to fishing industries in the area began. By 1973, 14 nations bordering the Indian Ocean had received aid.

Jurisdictional Problems

19. The Soviets are already tapping most of the world's high-productivity fishing grounds (see the map), causing various jurisdictional disputes with other fishing nations and coastal states. The Atlantic off the Grand Banks, Cape Cod, and West Africa; the northern Pacific; the Gulf of Alaska; and the Bering Sea are among the most productive areas. In 1973 the Soviets caught some 1.2 million tons of fish off US coasts, about evenly divided between the Atlantic and the Oregon-Washington coasts. In some instances, Soviet intrusions into US waters have led to seizures of Soviet vessels.

20. Conflicts with Japanese fishermen north of Japan are another problem. As Soviet interest in these waters has increased, the number of Japanese fishing vessels detained each year has risen. In response, Japanese fishermen have organized protest demonstrations and have harassed Soviet fishing vessels. Conflicts with Norway are also occurring as the Soviets intrude into

L E G E N D
ESTABLISHED SOVIET FISHING GROUNDS
AREAS OF CURRENT INTEREST

the Barents and Norwegian Seas, traditional Norwegian fishing grounds. The Soviets recently terminated their agreement with Norway and the United Kingdom to restrict the cod catch in the Barents Sea.

21. The Indian Ocean, the least intensively fished of the world's major ocean areas, is one of the few remaining regions with large untapped reservoirs of fish. The Soviets have been investigating the potential of this area for about a decade, often in cooperation with littoral states. Over the last year, Soviet interest has accelerated, but current activity is limited to research.

Problems and Prospects

22. The slowdown in the acquisition of vessels for the Soviet fishing fleet reflects a number of problems plaguing the Soviet fishing industry. Expansion of the fishing fleet has outpaced the introduction of modern on-shore processing and storage facilities, the capabilities of the inland distribution system, and the capacity of fleet repair bases, all of which reduce the efficiency of the industry. Moreover, as the range of the Soviet fleet has increased and long-distance operations have become more prevalent, the number of support vessels needed to sustain such operations has grown, leading to falling productivity. As a result, the Soviet fishing industry is unlikely to meet its goals in the current 5-year plan.

23. The USSR and other major fishing countries engaged in long-distance operations face growing political uncertainties in the years ahead. Under the auspices of the UN's Law of the Sea Conference, coastal states will probably impose restrictive regulations on fishing within 200 miles of their shores. Such a move would reduce access to the world's prime fishing grounds, almost all of which lie over the relatively shallow continental shelves which do not extend much more than 200 miles from shore.

24. Overfishing of traditional fish stocks is another problem facing the USSR. Much of the recent increase in total world fish catch has been based on new grounds and new species. The present maximum sustainable yield of normal fish species is estimated at 100 million tons. Any catch over this limit will begin to interfere with normal reproduction cycles. Competition for this important source of protein is expected to stiffen as other countries develop their fishing industries and world demand for scarce food resources intensifies.